

REMARKS

On April 21, 2003, the Examiner initiated a telephone discussion with the undersigned directed solely to a procedural matter concerning faxing a change of address to the Examiner and a restriction requirement, for which recordation procedures are provided in MPEP 812.01. The undersigned faxed a notice of change of address to the Examiner on April 22, 2003. Additionally, the undersigned responded to the restriction requirement with a provisional election with traverse by telephone, as reflected in the Examiner's interview summary of April 24, 2003, reference therein to the office action of April 29, 2003, and reference in that office action to the telephonic provisional election with traverse. It is submitted that no interview recordation procedures provided in MPEP 713.04 are necessary in this situation, given that the discussion concerned only a procedural matter and a restriction requirement for which interview recordation procedures are provided in MPEP 812.01. (See MPEP 713.04.) The faxed notice of change of address of April 22, 2003 and the formal written reply of October 9, 2003 to the office action of April 29, 2003 included and addressed the substance of the interview, the latter resulting in the election of the invention identified in the office action as "Group I, claims 1-35."

The Examiner's confirmation of the elected claims as being former Claims 1-35 and 76 is acknowledged and appreciated. Former Claim 32 was previously cancelled, such that alleged rejections of Claim 32 in the Office Action are believed to be inapplicable and are therefore not addressed herein. Former Claims 1-31, 33-35, and 76, along with previously withdrawn, non-elected Claims 36-75, are hereby cancelled, without prejudice.

New Claims 77-109 have been added. No new matter has been added by virtue of the new claims. Where a new claim generally relates to one or more of the former claims, same is generally indicated below.

<u>New Claim</u>	<u>Former Claim(s)</u>
77	2
78	Not Applicable (N/A)
79	3
80	4
81	5
82	N/A
83	N/A
84	6
85	7

86	11
87	12
88	13
89	14
90	15
91	16
92	17
93	18
94	19
95	N/A
96	20
97	21
98	N/A
99	N/A
100	22
101	23
102	27
103	28
104	29
105	30
106	31
107	34
108	35
109	76

New Claim 77 differs from former Claim 2, and new Claim 94 differs from former Claim 19, respectively, by reciting “said composition having a pH selected from a group consisting of a pH from about pH 1 to less than pH 2 and a pH from above pH 5 to about pH 10.” But for these differences, new Claim 77 and new Claim 94 are no narrower than former Claim 2, and former Claim 19, respectively.

None of new Claims 78, 82, 83, 95, 98, and 99 directly relates to a former claim, as indicated by “Not Applicable” or “N/A” above. New Claim 78 differs from new Claim 77, and new Claim 95 differs from new Claim 94, respectively, in reciting “wherein periodic acid is in an amount from about 0.075 to about 0.3 moles/kilogram.” New Claim 82 differs from new Claim 77, and new Claim 98 differs from new Claim 94, respectively, in reciting “wherein the pH is from about pH 6 to about pH 10.” New Claim 83 differs from new Claim 77, and new Claim 99 differs from new Claim 94, respectively, in reciting “further comprising a pH-adjusting agent.” Each of new Claims 78, 82, 83, 95, 98, and 99 is discussed herein in

view of the independent claim from which it depends, as seems most appropriate given the nature of the various rejections of former claims.

Former Claims 1 and 4-18 were rejected under 35 U.S.C. Section 102(a) or 35 U.S.C. Section 102(e) as allegedly anticipated by, or in the alternative, under 35 U.S.C. Section 103(a) as allegedly obvious over, either United States Patent No. 6,332,831 to Shemo *et al.* (hereinafter, "Shemo") or United States Patent No. 6,461,227 to Fang (hereinafter, "Fang"). The foregoing rejections are moot in view of the cancellation of the former Claims 1 and 4-18. It is submitted that new Claims 77, 80, 81, and 84-93, as well as new Claim 82 and 83, are patentable over Shemo or Fang for at least the reasons set forth below.

As to Shemo, Shemo fails to teach or suggest a composition for polishing a substrate surface having at least one feature thereon comprising a noble metal, a noble metal alloy, a noble metal oxide, or any combination thereof, comprising: periodic acid and an abrasive in a combined amount sufficient to render the substrate surface substantially planar upon chemical-mechanical polishing thereof, wherein periodic acid is in an amount from about 0.05 to about 0.3 moles/kilogram; said composition having a pH selected from a group consisting of a pH from about pH 1 to less than pH 2 and a pH from above pH 5 to about pH 10, as recited in Claim 77, Claims 80, 81, and 84-93 depending therefrom, and Claims 82 and 83 depending therefrom. For example, Shemo teaches specifically against a composition having a pH of less than pH 2 and a composition having a pH of more than pH 5. See Shemo, col.6, ll.12-33, for example. Shemo thus fails to teach or suggest a composition for polishing a substrate comprising a combination of elements, as recited in Claim 77, Claims 80, 81, and 84-93 depending therefrom, and Claim 83 depending therefrom, wherein the composition has a pH from about pH 1 to less than pH 2 and a pH from above pH 5 to about pH 10. Further, as to Claim 91, Shemo fails to teach or suggest the composition of any of Claim 77, Claims 80, 81, and 84-86 depending therefrom, and Claims 82 and 83 depending therefrom, wherein the feature comprises a material selected from a group consisting of Ir, IrO₂, Pt, and any combination thereof. The Examiner has not shown otherwise.

In view of the foregoing, it is submitted that new Claims 77, 80, 81, and 84-93, as well as new Claims 82 and 83, are patentable over Shemo.

As to Fang, the effective filing date of Fang is October 17, 2000. Attached is a Declaration of Robert J. Small and Zhefei J. Chen under 37 C.F.R. 1.131 (hereinafter, the

"Declaration"). The Declaration establishes invention of the subject matter of new Claims 77, 80, 81, and 84-91, as well as new Claims 82 and 83, prior to October 17, 2000. Additionally, Fang fails to teach or suggest the invention of Claims 92 and 93.

In view of the foregoing, it is submitted that new Claims 77, 80, 81, and 84-93, as well as new Claims 82 and 83, are patentable over Fang.

Former Claims 2, 3, 19-31, and 33-35 were rejected under 35 U.S.C. Section 103(a) as allegedly being unpatentable over either Shemo or Fang. The foregoing rejections are moot in view of the cancellation of the former Claims 2, 3, 19-31, and 33-35. It is submitted that new Claims 77, 79, 94, 96, 97, and 100-108, as well as new Claims 78, 95, 98, and 99, are patentable over Shemo or Fang for at least the reasons set forth below.

As to Shemo, Shemo fails to teach or suggest the invention of Claim 77, for at least the reasons remarked upon above, which are fully incorporated by reference in this traversal. Shemo similarly fails to teach or suggest the invention of Claim 79, which depends from Claim 77, as well as Claim 78, which depends from Claim 77.

Shemo additionally fails to teach or suggest a composition for polishing a substrate surface having at least one feature thereon comprising a noble metal, a noble metal alloy, a noble metal oxide, or any combination thereof, comprising: periodic acid in an amount from about 0.05 to about 0.3 moles/kilogram; and an abrasive in an amount from about 0.2 to about 6 weight percent; said composition having a pH selected from a group consisting of a pH from about pH 1 to less than pH 2 and a pH from above pH 5 to about pH 10. For example, Shemo teaches specifically against a composition having a pH of less than pH 2 and a composition having a pH of more than pH 5. See Shemo, col.6, ll.12-33, for example. Shemo thus fails to teach or suggest a composition for polishing a substrate comprising a combination of elements, as recited in Claim 94, Claims 96, 97, and 100-108 depending therefrom, and Claims 78, 95, 98, and 99 depending therefrom, wherein the composition has a pH from about pH 1 to less than pH 2 and a pH from above pH 5 to about pH 10.

In view of the foregoing, it is submitted that new Claims 77, 79, 94, 96, 97, and 100-108, as well as new Claims 78, 95, 98, and 99, are patentable over Shemo.

As to Fang, the effective filing date of Fang is October 17, 2000. The Declaration establishes invention of the subject matter of new Claims 77, 79, 94, 96, 97, and 100-106, as

well as new Claims 78, 95, 98 and 99, prior to October 17, 2000. Additionally, Fang fails to teach or suggest the invention of Claims 107 and 108.

In view of the foregoing, it is submitted that new Claims 77, 79, 94, 96, 97, and 100-108, as well as new Claims 78, 95, 98 and 99, are patentable over Fang.

Former Claim 76 was rejected under 35 U.S.C. Section 103(a) as allegedly being unpatentable over either Shemo or Fang. The foregoing rejection is moot in view of the cancellation of the former Claim 76. It is submitted that new Claim 109 is patentable over Shemo or Fang for at least the reasons set forth below.

As to Shemo, Shemo fails to teach or suggest the invention of Claim 94, for at least the reasons remarked upon above, which are fully incorporated by reference in this traversal. Shemo similarly fails to teach or suggest the invention of Claim 109, which depends from Claim 94. Further, as to Claim 109, Shemo fails to teach or suggest the composition of any of Claims 94, and Claims 107 and 108 depending therefrom, wherein the feature comprises a material selected from a group consisting of Ir, IrO₂, Pt, and any combination thereof. The Examiner has not shown otherwise.

In view of the foregoing, it is submitted that new Claim 109 is patentable over Shemo.

As to Fang, the effective filing date of Fang is October 17, 2000. The Declaration establishes invention of the subject matter of new Claim 109 prior to October 17, 2000.

In view of the foregoing, it is submitted that new Claim 109 is patentable over Fang.

Former Claims 1, 4, 5, and 11-18 were rejected under 35 U.S.C. Section 102(a) or 35 U.S.C. Section 102(e) as allegedly anticipated by, or in the alternative, under 35 U.S.C. Section 103(a) as allegedly obvious over, United States Patent No. 6,527,622 to Brusic *et al.* (hereinafter, "Brusic"). The foregoing rejections are moot in view of the cancellation of the former Claims 1, 4, 5, and 11-18. It is submitted that new Claims 77, 80, 81, and 86-93, are patentable over Brusic for at least the reasons set forth below.

The effective filing date of Brusic is January 22, 2002. The Declaration establishes invention of the subject matter of new Claims 77, 80, 81, and 86-91 prior to January 22, 2002. Additionally, Brusic fails to teach or suggest the invention of Claims 92 and 93.

Former Claims 2, 3, 6-10, 19-31 and 33-35 were rejected under 35 U.S.C. Section 103(a) as allegedly being unpatentable over Brusic in view of Fang. The foregoing rejections are moot in view of the cancellation of the former Claims 2, 3, 6-10, 19-31 and 33-35. It is

submitted that new Claims 77, 79, 84, 85, 94, 96, 97, and 100-108, as well as new Claims 78, 82, 83, 95, 98, and 99, are patentable over Brusic in view of Fang for at least the reasons set forth below.

The effective filing date of Brusic is January 22, 2002. The effective filing date of Fang is October 17, 2000. The Declaration establishes invention of the subject matter of new Claims 77, 79, 84, 85, 94, 96, 97, and 100-106, as well as new Claims 78, 82, 83, 95, 98, and 99, prior to January 22, 2002 and prior to October 17, 2000. Additionally, each of Brusic, Fang, and the alleged combination thereof (*arguendo*), fails to teach or suggest the invention of Claims 107 and 108.

Former Claim 76 was rejected under 35 U.S.C. Section 103(a) as allegedly being unpatentable over Brusic in view of Fang. The foregoing rejection is moot in view of the cancellation of the former Claim 76. It is submitted that new Claim 109 is patentable over Brusic in view of Fang for at least the reasons set forth below.

The effective filing date of Brusic is January 22, 2002. The effective filing date of Fang is October 17, 2000. The Declaration establishes invention of the subject matter of new Claim 109 prior to January 22, 2002 and prior to October 17, 2000.

Former Claims 1, 4, 5 and 11-18 were rejected under 35 U.S.C. Section 102(a) or 35 U.S.C. Section 102(e) as allegedly anticipated by, or in the alternative, under 35 U.S.C. Section 103(a) as allegedly obvious over, United States Patent Publication No. 2003/0060135 to Moeggenborg *et al.* (hereinafter, "Moeggenborg"). The foregoing rejections are moot in view of the cancellation of the former Claims 1, 4, 5, and 11-18. It is submitted that new Claims 77, 80, 81, and 86-93 are patentable over Moeggenborg for at least the reasons set forth below.

The effective filing date of Moeggenborg is September 24, 2001. The Declaration establishes invention of the subject matter of new Claims 77, 80, 81, and 86-91 prior to September 24, 2001. Additionally, Moeggenborg fails to teach or suggest the invention of Claims 92 and 93.

Former Claims 2, 3, 6-12, 19-31 and 33-35 were rejected under 35 U.S.C. Section 103(a) as allegedly being unpatentable over Moeggenborg in view of Fang and United States Patent Publication No. 2002/0076932 to Dirksen *et al.* (hereinafter, "Dirksen"). The foregoing rejections are moot in view of the cancellation of the former Claims 2, 3, 6-12, 19-

31 and 33-35. It is submitted that new Claims 77, 79, 84-87, 94, 96, 97, and 100-108, as well as new Claims 78, 82, 83, 95, 98 and 99, are patentable over Moeggenborg in view of Fang and Dirksen for at least the reasons set forth below.

The effective filing date of Moeggenborg is September 24, 2001. The effective filing date of Fang is October 17, 2000. The effective filing date of Dirksen is either December 17, 1999, *arguendo*, or December 15, 2000. The Declaration establishes invention of the subject matter of new Claims 77, 79, 84-87, 94, 96, 97, and 100-106, as well as new Claims 78, 82, 83, 95, 98 and 99, prior to September 24, 2001, prior to October 17, 2000, and prior to December 17, 1999 (if applicable to Dirksen, *arguendo*) and December 15, 2000. Additionally, each of Moeggenborg, Fang, Dirksen, and the alleged combination thereof (*arguendo*), fails to teach or suggest the invention of Claims 107 and 108.

Former Claim 76 was rejected under 35 U.S.C. Section 103(a) as allegedly being unpatentable over Moeggenborg in view of Fang and Dirksen. The foregoing rejection is moot in view of the cancellation of the former Claim 76. It is submitted that new Claim 109 is patentable over Moeggenborg in view of Fang and Dirksen for at least the reasons set forth below.

The effective filing date of Moeggenborg is September 24, 2001. The effective filing date of Fang is October 17, 2000. The effective filing date of Dirksen is either December 17, 1999, *arguendo*, or December 15, 2000. The Declaration establishes invention of the subject matter of new Claim 109 prior to September 24, 2001, prior to October 17, 2000, and prior to December 17, 1999 (if applicable to Dirksen, *arguendo*) and December 15, 2000.

In view thereof, an indication that new Claims 77-109 are allowable is respectfully requested.

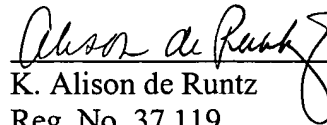
CONCLUSION

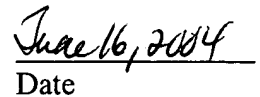
Claims 77-109 define novel and non-obvious subject matter of the present invention. Therefore, an early notification that the application is in condition for allowance is earnestly solicited.

**EXPRESS MAIL LABEL
NO:**

EV 437668108 US

Respectfully submitted,


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Date

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